



# Science Committee Meeting Notes

January 30, 2018 – Coachella Corporate Yard

Prepared by the Consensus Building Institute

## Meeting in Brief

- The Science Committee provided input on draft Habitat Design Criteria regarding acreage, water depths, modeling, proof of concept, islands criteria, predation considerations, and selenium targets. The Committee also considered guild-specific and ‘bottom up’ approaches to habitat design – i.e., what do invertebrates need. Members’ written comments are due to Carol Roberts by 2/27; Carol will compile them into formal Committee comments for the State by 3/2.
- The Committee recommended the State’s Adaptive Management program include a more predictive management approach for Phase 1 planning, monitoring, and adaptive management, which would also allow for more in depth Committee review and input.
- The Committee decided to delay the summer Science Symposium in light of other Committee SSMP Phase 1 priorities and recommends participating in the UC Riverside Palm Desert campus research events this year.

## Action Items

Timeline	Who	What
2/5	Carol R	Circulate Habitat Criteria after today’s meeting
2/6	Vivien/DWR	Publicize Jeff Geraci’s (CRWQCB) on-line forum at the 10-Year Committee meeting. Post link on DWR and CNRA websites
2/6	Carol R	Talk with Vivien and Jeff about using the on-line forum for information and document-sharing
2/9	Vivien/DWR	Email Carol Water Supply Balance Memo to circulate
2/9	Vivien/DWR	Update Committee following design charrettes, including making form of report-out accessible. Work to involve Committee members as useful during design-build process.
2/9	Committee members	Email Carol R. to let her know the aspects of Phase 1 planning in which you’d like to participate
2/28	Carol R, Bruce W	Work with Vivien/DWR, with Committee input, to define process for the Committee to review pertinent data and consult with State in Phase 1 project design, rather than just reviewing what State has already evaluated and produced
2/28	Carol & Doug	Update/circulate ‘listing of Science investigations’ document
2/28	CBI	Post State’s presentations from today on CNRA website with other meeting materials

## Updated Phase I Work Plan (Jan. 2018)

The State posted online the updated Work Plan, as well as the explanation of how comments, including this Committee's, were addressed in the updated version. Both documents are available on the CNRA website at: <http://resources.ca.gov/meetings-salton-sea/ssmp-10-year-plan-committee-meeting-february-7-2018/>. If Committee members have remaining questions, concerns or comments about how the Committee's comments were incorporated, email Vivien at DWR, with a copy to Carol. The Work Plan is expected to be a living document and will be updated over time.

Generally, Committee members expressed a wish to see more specificity about management goals and strategies. This would allow for more of a science-based review of the data on which the goals and strategies are based. *See Adaptive Management discussion below.*

**Selenium Targets.** The Committee has assembled a small workgroup to provide input to the State regarding selenium targets, particularly for New River West and controlled thermal resources development, using the USGS saline habitat ponds and information from the New River wetlands as guides. The group is working with the State to the extent possible in the short timeframe allowed to look at modeling opportunities. Let Carol know if you're interested and not currently involved.

## SSMP Context Setting

**SSMP Project Terminology.** In an effort to provide more clarity regarding SSMP Phase 1 projects, the State has proposed a clarification of terminology. See attached presentation, which will be posted with other meeting materials on the CNRA website. In sum:

- **SSMP Phase 1:** current overarching program under which the state is currently operating.
- **SSMP projects** include 30,000 acres of habitat and dust suppression projects. These projects are currently not fully permitted. These include the project below.
- **SCH** (Species Conservation Habitat), which comprises 640 acres and is 100% designed and permitted, is funded by Prop 84 and does not count towards the Stipulated Order requirements. It is sometimes referred to as **New River East**.
- **New River West** (sometimes also referred to as "SCH Phase 2"), of still undetermined acreage, is in the design phase and funded by Prop 1. This was part of the area originally permitted as 'SCH' (hence some confusion).
- **New River Far-East** and **New River Far-West** will be developed as funds become available.

**ESA/CESA Requirements: Implications for SSMP.** Felicia Sirchia of the U.S. Fish and Wildlife Service (USFWS) reviewed federal Endangered Species Act (ESA) requirements that will be relevant to Phase I projects. Felicia was specifically referring to projects addressed under the U.S. Army Corps of Engineers Clean Water Act permit, in which adverse effects on particular fish or avian species (especially desert pupfish) could delay or halt projects. CDFW, which implements the California Endangered Species Act (CESA), is both an SSMP project proponent and a regulator addressing impacts on state-listed species. CDFW has consulted with DWR on managing pupfish in Species Conservation Habitat (SCH) and is focused on pupfish connectivity as a key element of all SSMP projects. This is particularly important for New River West – as the habitat gets saltier, the result is loss of shoreline habitat for pupfish, which affects connectivity. CDFW is working with the USFWS and U.S. Army Corps of Engineers to create connectivity drains. Another issue is algae blooms and die-offs. Partners need to know the potential for nutrient loading and possible effects, including how

to mitigate through management. One strategy is to let algae blooms/die-offs occur and settle out in a deeper water-mixing pond, before the water enters pupfish habitat areas.

Scott Wilson of CDFW reiterated there will be impacts on species from project construction and operation. One goal for aquatic areas is to provide desert pupfish habitat. This will require close collaboration with other plans and managers working on habitat connectivity, including with IID and at north end, with CVWD and others on the Coachella Multiple Species Habitat Conservation Plan.

**What's on the horizon for the Committee?** Bruce Wilcox reported that New River West is next on line. The State plans to be advancing multiple projects at same time, in case there are delays with any one of them. He expects the Science Committee will provide input to long-range planning – e.g., to develop criteria for different long-range scenarios – once the Long-Range Planning Committee provides an initial review and screening function. The Committee should expect to be engaged in an on-going way with projects throughout the year, likely without lengthy periods of time for review and input (given the anticipated quick timeframes), but in more of an active, nimble way based on the specific expertise and roles of different Committee members. Members should provide their interest/focus areas to Carol to ensure the State is engaging them on the relevant issues. To involve more Committee members in the design charrettes currently underway, Vivien at DWR will provide the results in a more accessible format and work with Carol to engage specific members as relevant.

## **Adaptive Management Discussion**

Many Committee members would like to see the State taking a more predictive approach to SSMP management, acknowledging the need to adapt based on how each project area responds to initial goals and strategies. Management strategies would be based on anticipated system responses, in light of best available data and models, which would then be closely monitored and adapted as necessary. Members would like to see these specific goals and anticipated management strategies described in the Work Plan, which would allow for meaningful science-based review earlier rather than later in the process. The State expressed openness to a more predictive approach, while also acknowledging the challenge of having projects proceed quickly and in a fairly ad hoc (rather than systematized) approach due to funding realities.

Committee members reiterated that they would be able to maximize the value of their advisory role if the State consults with them early in the planning stages, and if they are able to review the State's data and calculations. For example, the Committee would like to review data for the ponds before plans are further defined. Bruce and Vivien told the Committee it should expect to be consulted on an on-going basis; the State will try to do this as early as possible in project planning, including when the available data are incomplete.

## **SSMP Habitat Design Criteria**

The State presented its preliminary Habitat Design Criteria for Phase 1. The draft document itself will be emailed to the Committee directly after the meeting and is posted on the CNRA website at: <http://resources.ca.gov/meetings-salton-sea/ssmp-10-year-plan-committee-meeting-february-7-2018/>. The State would like the Committee's substantive input by March 5. Carol offered to compile comments if members can submit them to her by 2/27. Any form is fine (email comments, direct track changes, etc.). Carol will compile/synthesize all of the edits.

The State noted that the habitat criteria are currently programmatic and are not yet at the *project* criteria level. Committee members encouraged the State to do more project-level planning, as discussed above. In particular, the following issues and questions were raised:

- **Acreage.** What are project-specific goals for acreage?
- **Minimum habitat for different species.** Do we prioritize certain habitats or species over others (e.g., fish-eating birds, shoreline birds)?
- **Depths.** No definitive depth selected as a maximum. What's planned is mostly shallow (up to 6 ft) with max of 10 ft. Shallower depths subject to fairly constant mixing. Note 3-inch minimum may be too deep for some of the smallest shorebirds. Goal is to have variability even in shallow water (including mudflats) based on project-specific considerations.
- **Proof of concept for initial construction.** How deep is deep enough to provide thermal refuge for a particular species? (Thermal stress possible from high or low temps. Mostly concerns about high water temps. But also cold water temps in winter for tilapia.)
- **Modeling.** We can predict temperatures more easily than other uncertainties. There has been modeling on this, to make predictions on tilapia loss from different temperature regimes.
- **Islands criteria.** This is currently general. But need to understand conditions, so we can balance what birds need and realistic site limitations. (Rocky islands may not be feasible.)
- **Predation considerations.** Acknowledge that pupfish in open water will be fed on by birds. Presumably not an issue so long as pupfish maintained. The USFWS's Biological Opinion is relevant here. Increasing connectivity and increased habitat would help maintain population.
- **How is State addressing selenium end points?** State DFW sees this as risk management and monitoring issue, rather than in terms of setting criteria. Selenium work group is looking at how this defined and managed in individual projects. USFWS and CDFW will be looking closely at these numbers. There was a suggestion that it would be useful for DWR to have contingencies for adaptively managing based on different possible outcomes.
- **Adaptive Management Program.** Suggest articulating expected outcomes. If monitoring diverges from these numbers, this should set off discrete responses. This would be a useful role for the Committee, given the desire is for a scientifically based program involving hypothesis testing rather than a "trial and error" approach.
- **'Bottom-up' habitat design.** Historically we think top-down, looking first at predators (here, birds). Would be stronger to start from the bottom up, i.e., starting with what aquatic invertebrates need. If we design for them, it will strengthen conditions for all, including benthic invertebrates. (Rather than on the tail end, when we notice there are no benthic invertebrates present.) Need to address toxicity from pesticides and effects on benthic organisms. Useful to start at base of food chain.
- **Guild-specific habitat approaches.** Are we looking at **guild-specific** types of approaches to habitat? Not all birds need deep water. Can maximize water distribution. Depends on how much land exposed. Need to work closely with air quality experts to consider this.

## Design-Build Contract and Procurement Process – New River West

**State's Plan.** The design-build process is fairly new to DWR. It involves shorter timelines in order to build projects more quickly. The State will develop general criteria (driven by ecological criteria) and 20-40% design guidelines, and then submit for bid. The State is doing a design charrette this week to develop the initial designs. Vivien will explore with Carol the best way to seek relevant Committee members' input on those, knowing this will need to be a fast-moving and nimble process.

**Anticipated Committee Role.** Committee would help compile the initial criteria, before the selection of the contractor. After the contractor begins construction, the State would request a second round of input from the Committee. The Selenium Workgroup is a good model. The State selected people with the relevant expertise. It's important that these subcommittees be sufficiently nimble to work with the State in light of the tight timelines. If the State can define the most critical criteria, DWR can then tap Science Committee members for input on those criteria. The State and Committee discussed establishing more systematic channels to update the Committee and get relevant input, working through the Committee Chair.

**Next Steps.** Vivien will follow up with the Committee after the upcoming design charrettes to give the Committee an idea of where things stand and next steps. Jeff Geraci from the Colorado River Regional Water Quality Control Board suggested his Salton Sea on-line forum is a great place to post documents for information-sharing: <http://saltonseaproject.forumotion.com/>. This suggestion was well received and will be shared with the 10-Year Planning Committee as well.

## Public Comment

- A community member from Eco Media Compass encouraged Committee members to consider the side benefits from rebuilding bays and harbors, which will garner local support. They are small, rapidly developable, and low budget and would be successful fish and bird habitat if done right with input from the science community. They are also highly visible, which will help develop support for the Sea (this could lead to increased private easements). Aquafarming in Desert Shores could be a model for other keys and bays at the Sea, mitigating dust and providing habitat while also being good for human inhabitants. He also encouraged the Committee and State to consider local contractors.
- A community member from Salton Sea Action Committee would like to see the State develop scientific criteria for deep (10-25 foot) water habitat in the SSMP at an early point in process.

## 2018 Science Symposium

It was suggested that the proposed symposium, planned for the summer, be postponed given the need to focus on monitoring and adaptive management planning for Phase I projects in upcoming months. Given that the primary purpose for the Symposium was information-sharing about current science investigations related to the Sea, Carol and Doug Barnum offered to update the List of Investigations and circulate it to Committee members. There will be other opportunities for the science community to share Salton Sea investigations. UC Riverside Palm Desert campus is convening an event this year for this purpose as well, which may provide an opportunity for the Committee to organize a meeting at the same time. Carol will update the Committee on this.

## Meeting Attendees

Several community, Tribal, and agency stakeholders attended the meeting, in addition to the following Committee members and state staff liaisons.

### State of California

Bruce Wilcox, Assistant Secretary, Natural Resources  
Vivien Maisonneuve (by phone), DWR  
Scott Wilson, CDFW  
Sam Haynes, CDFW

Felicia Sirchia, USFWS, participated by phone to orient the Committee to the requirements under the ESA.

### Members Attending (some by phone)

Present			
✓	Carol	Roberts	CHAIR. USFWS (Selenium and Other Contaminants)
✓	Tom	Anderson	USFWS (Avian)
	Michael	Anderson	UC Riverside (Water & Water Quality)
✓	Doug	Barnum	USGS (Selenium and other Contaminants)
✓	Steve	Bigley	Coachella Valley Water District (Water & Water Quality)
✓	Tim	Bradley	UC Irvine (Aquatic)
✓	Steve	Charlton	IID
✓	Mike	Chotkowski	USGS (Biology)
✓	Amato	Evans	UCSD Scripps
✓	Andrea	Jones	Audubon California (Avian)
	Kurt	Leuschner	College of the Desert (Biology)
✓	Jeong-Hee	Lim	Regional Water Quality Control Board (Water Quality)
✓	Jason	Low	South Coast Air Pollution Control Dist. (Air Quality)
✓	Robert	McKernan	Avian consultant (Birds)
✓	Kathy	Molina	LA County Natural History Museum
✓	Geoff	Schladow	UC Davis (Water and Water Quality)
✓	Dave	Shuford	Point Blue Conservation (Birds)
✓	Ramona	Swenson	ESA Associates (Aquatic)
✓	Earl	Withycombe	CARB

### Facilitator

CBI Facilitator Ryan Golten, [rgolten@cbuilding.org](mailto:rgolten@cbuilding.org), 303-880-9521